Live Birth in an Unruptured Communicating Rudimentary Horn Pregnancy at 32 Weeks: Case Report

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ÖZET

32 haftalık rüptüre olmamış komminikan rudimenter hornual gebelikte canlı doğum vakası

Komminikan hornualli canlı fetus doğumu alışılmışın dışında çok az görülür ve sıklıkla gebeliğin rüptürüyle sonuçlanan hayatı tehdit edici bir durumdur. Bu olgu erken haftalarda tanısı obstetrik sonografi ile konulamamış 32 haftalık gestasyonda rüptüre olmamış hornual gebelik vakasıdır. Bu rapor, plasentanın hornda ve fetusun uterin kavitede yerleştiği ender bir gebeliği tanımlar. Hem maternal hem de neonatal sürvili gebeliğin sezeryan seksiyo yoluyla başarılı biçimde doğumu gerçekleştirilmiştir.

Anahtar kelimeler: Canlı doğum, gebelik, rudimenter horn

ABSTRACT

Live birth in an unruptured communicating rudimentary horn pregnancy at 32 weeks: case report

Delivery of a live fetus with a communicating rudimentary horn is an extremely rare and a life-threatening condition as it mostly terminates by rupture of pregnancy. This was a case of communicating unruptured rudimentary horn pregnancy which was misdiagnosed on early obstetric sonography progressing to 32 weeks period of gestation. This report describes an unusual pregnancy whose placenta was lying in rudimentary horn and fetus was placed in gravid uterine cavity. The pregnancy was successfully delivered using cesarean section, with both neonatal and maternal survival.

Key words: Live Birth, pregnancy, rudimentary horn

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INTRODUCTION

Rudimentary horn is a uterine anomaly which takes its origin from the Müllerian channel. The incidence of Müllerian duct abnormalities is approximately 3.2% between the fertile women. The most frequent type of uterine anomaly is uterine septum (1). One of the rarest abnormalities of Müllerian channel is rudimentary horn. It is separated into two types as communicating and non-communicating according to connection with uterine cavity.

Communicating rudimentary horn represents its symptoms at second or third decade of life. When rudimentary horn pregnancy is formed it is resulted approximately 50% with rudimentary horn rupture and 0.5% with maternal mortality (2).

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It is extremely uncommon for such a pregnancy to result in the delivery of a viable infant. Usually the rupture of the uterine wall occurs in the second trimester, presenting as acute abdominal pain with intraperitoneal hemorrhage. It is estimated that 600 to 700 rudimentary horn pregnancies have been reported in the worldwide up to now. And rudimentary horn pregnancy cases were mostly reported as non-communicating. We aimed to present particularly hornual pregnancy which was at the 32nd week of the gestation and whose baby was alive and to our knowledge this is the first case of live birth in a communicating rudimentary horn pregnancy.

CASE REPORT

The patient was multigravid 23 years old woman with a 32 weeks' gestation. She was referred for the effective uterine contraction with a known communicating right-sided rudimentary horn and whose first gestation was resulted with caesarian section for unfavorable position of the fetus. After the first

operation, intravenous pyelography (IVP) was advised for possibilities of congenital urinary system abnormalities but patient did not perform IVP.

Clinical assessment and investigations were all normal. Hematological parameters were also within normal limits as the haemoglobin level was 13.1 g/dl. On speculum examination there was no sign for premature membrane rupture. On vaginal examination cervical dilatation was 2 cm and effacement was 50. The cervical length was measured as 24 mm on transvaginal ultrasonography (USG) and abdominal USG assessment showed that there was no evidence of uterine rupture with a 32 weeks' gestation pregnancy. The cardiotocographic tracing of the fetal heart rate was normal. Despite tocolytic treatment was initiated, the cervical dilatation was reached 5 cm. Therefore laparotomy was decided.

At laparotomy, the pregnant uterus was unruptured and fetus was placed on gravid uterine cavity and placenta was lying in rudimentary horn (Figure 1). A live born male infant, weighing 2300 gr, with Apgar scores of 8 at 1 min and 10 at 5 min, was delivered. After delivery, right-sided rudimentary horn was discovered, which was connected to the main uterine horn and placenta was settled in. After the operation, IVP and USG examinations were recommended for the further evaluation.

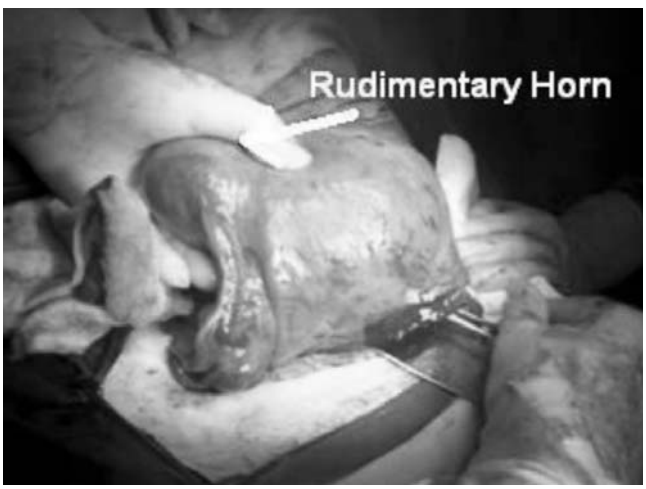

Figure 1: Unruptured communicating rudimentary horn with normal sized uterus

DISCUSSION

Pregnancy in a rudimentary uterine horn is rare with estimated incidence of 1/100000–1/and fatal form of ectopic pregnancy (3,4). Antenatal diagnosis is difficult with confirmation being made either at laparoscopy or laparotomy. Rupture frequently occurs in the late first or second trimester, resulting in massive hemoperitoneum leading to fetal demise and maternal compromise (5). When pregnancy occurs in a rudimentary horn, there is a high rate of spontaneous abortion, preterm labor, intrauterine growth retardation, intraperitoneal hemorrhage, and uterine rupture. Sixty-one per cent of uterine ruptures occur in the second trimester, and approximately 6% occur in the third trimester (6). In our case, fetal anomaly and fetal growth restriction was not remarked, but preterm labor was observed. And because of the combined renal anomaly, pre-eclampsia associated with a rudimentary horn pregnancy has been reported (4). The patient was normotensive.

The most serious complication associated with this condition is rupture of the rudimentary horn, which may be life threatening to the mother because of massive intraperitoneal hemorrhage (7). Elsayegh and Nwosu reported a ruptured pregnancy in the communicating rudimentary horn at 34 weeks' gestation that was misdiagnosed bicornuate uterus based on antenatal ultrasound (8). In our patient, pregnancy reached to 32 weeks with both neonatal and maternal survival. To the best of our knowledge, this is the first case of pregnancy without any complication in the communicating rudimentary horn in literature.

Fusion defects of the Müllerian ducts are frequently combined with other anomalies of the genitourinary tract, such as vaginal septum or renal agenesis, and most commonly manifest themselves as gynecologic complaints such as dysmenhorrea, dyspareunia, endometriosis, and sterility (9). In this reported case, there is no vaginal anomaly and no such complaints.

USG, hysterosalpingography, hysteroscopy, laparoscopy, and magnetic resonance imaging are the diagnostic tools (10). However, rudimentary horn pregnancy was misdiagnosed on early obstetric sonography and definitive diagnosis was confined by laparotomy as was in our case. So this report disclosed that recent advances in ultrasonography were prominent but the diagnosis of pregnancy in the rudimentary horn remained elusive with confirmatory diagnosis being made at laparotomy.

In conclusion, our case was uterine pregnancy without any sign of complication such as uterine rupture

on USG examination and rudimentary horn pregnancy was certainly diagnosed that placenta was lying in rudimentary horn and fetus was localized in gravid uterine cavity at laparotomy. Additionally, the pregnancy was successfully delivered using cesarean section, with both neonatal and maternal survival.

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